

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Bui et al.  
Application No. : 10/797,324  
Filed : 03/10/2004  
Title : Front Illuminated Back Side Contact Thin  
Wafer Detectors  
Grp./Div. : 2826  
Examiner : Kevin Quinto  
Docket No. : UDT103.Ord

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February 17, 2006

## RESPONSE TO NOTICE OF DRAWING INCONSISTENCY WITH SPECIFICATION

In response to the action mailed January 19, 2006, applicant requests the Office of Patent Publication/Publishing Division amend the specification as follows (clean copy of page 8 of the specification is enclosed herewith):

On page 8, line 7, remove "and".

On page 8, line 9, remove "invention." and replace it with  
"invention; and"

One page 8, line 10, add the sentence "Figure 6d depicts a side planar view of a photodiode of the present invention."

The proposed modifications add no new matter, are merely reflective of what Figure 6d depicts, and address the inconsistency which is the subject of the notice. Applicant respectfully submits that the present application is in form for publication and issuance.

Respectfully submitted,



By \_\_\_\_\_  
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Figure 5b is a side perspective view of area detail 'C' from Figure 5a;

Figure 6a depicts a side planar view of a first set of steps in the formation of photodiodes of the present invention;

5 Figure 6b depicts a side planar view of a second set of steps in the formation of photodiodes of the present invention;

Figure 6c depicts a side planar view of a third set of steps in the formation of photodiodes of the present invention; and

10 Figure 6d depicts a side planar view of a photodiode of the present invention.

#### **DESCRIPTION OF THE INVENTION**

The present invention is directed toward a detector structure, detector arrays, a method of detecting incident radiation, and a method of manufacturing the detectors. The present invention comprises several embodiments that provide for reduced radiation damage susceptibility, decreased affects of cross-talk, and increased flexibility in application. Various 20 modifications to the disclosed embodiments will be readily apparent to those of ordinary skill in the art, and the disclosure set forth herein may be applicable to other embodiments and applications without departing from the spirit and scope of the present invention and the claims hereto. 25 appended. Thus, the present invention is not intended to be limited to the embodiments described, but is to be accorded the broadest scope consistent with the disclosure set forth herein.

In one embodiment, the present invention comprises a plurality of front side illuminated photodiodes, optionally 30 organized in the form of an array, with both the anode and cathode contact pads on the back side. The front side